

## **Möglichkeiten zur Nutzung elektronischer Ressourcen bei der Entwicklung wirtschaftlicher Fähigkeiten von Schülern im eigenständigen Bildungsprozess**

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**Zusammenfassung:** Dieser Artikel bietet grundlegende Konzepte und Beispiele, die zur Entwicklung wirtschaftlicher Fähigkeiten beitragen, und behandelt die wirtschaftliche Bildung, Ausbildung und wirtschaftliche Informationen im Detail. Es wurden Informationen zu Bildungsressourcen aus Industrieländern bereitgestellt, einschließlich E-Learning-Ressourcen für das globale Netzwerk.

**Schlüsselwörter:** E-Learning-Ressourcen, E-Bibliotheken, moderne Bildungstechnologien, Spieltechnologien, programmierte Lerntechnologien, modulare Lerntechnologien, Unternehmertum und Wirtschaftswissen.

## **Opportunities to use electronic resources in the development of economic skills of students in the independent educational process**

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**Abstract:** This article provides basic concepts and examples that help to develop economic skills, and covers economic education, training, and economic information in detail. Information was provided on educational resources from developed countries, including e-learning resources for the global network.

**Keywords:** e-learning resources, e-libraries, modern educational technologies, game technologies, programmed learning technologies, modular learning technologies, entrepreneurship, and economic knowledge.

### **Introduction.**

The aim of the research is to organize independent learning activities effectively in higher education institutions in the formation of students' economic skills.

**Material and research methods.** The role of modern e-learning resources in the effective organization of independent learning activities of students in higher education institutions and, as a result, to increase students' interest in science, motivation, development of creative abilities and professional competence and shaping options are explored.

**Results.** Using the methodology developed in the study, it was found that the competence of students in the basics of economics in higher education increased by 10.25%.

Educational technologies play a leading role in the formation of economic skills in students in the educational process. Today, the following types of educational technologies are widely used: game technologies, problem-based learning technology, differentiated learning technology, individualized learning technology,

programmed learning technology, computer-assisted learning technology, modular learning technology, case study teaching technology, creative teaching technology, developmental learning technology, full mastery technology, teaching technology based on a systematic activity approach, teaching technology based on a science activity approach.

In today's market economy, it is important for students to have economic knowledge. Economic knowledge develops people's foresight, forecasting, and planning skills, protects them from many mistakes, and encourages them to make calculations. Economic concepts are theoretical knowledge used in the study of economics, which is a scientific expression of real economic reality. They are divided into two groups: General economic concepts - concepts specific to all stages of economic development, such as labor, production, products, labor, resources. Some concepts specific to the socio-economic system, such as money, demand, supply, valuation, credit, emissions, inflation, are specific to some systems. Economic theory describes economic laws based on the generalization of the characteristics of economic processes and events.

Economic education is the introduction of the basics of economics, the development of the ability to think about thrift, diligence, initiative, entrepreneurship, economic accounting, and so on. Economic knowledge is a set of knowledge, skills, competencies and worldviews acquired and systematized as a result of economic education and training [14]. The economic skills acquired by students in the process of independent study can be defined on the basis of the following qualities: entrepreneurship, initiative, economic knowledge, speed, honesty, thrift.

However, due to the rapid development of modern times and the emergence of new approaches to teaching, it seems that the teaching methods and tools used are outdated and do not fully meet the requirements of today's world [1]. Therefore, it is important to develop new mechanisms for the introduction of information and communication technologies, including e-learning resources, in order to effectively and modernize the independent learning of students studying in higher education institutions [6].

Differentiated learning technology is based on a general didactic system that allows for the specialization of the learning process in specially organized homogeneous groups of students. Programmed learning technology is a form of rapid internal and external feedback that programmed learning requires from the educator and the student. Internal feedback is the continuous analysis of a student's mastery of a learning material. External feedback is the continuous assessment of the student's mastery of the learning material by the educator or manager-teacher device. The implementation of these educational technologies is directly related to the independent activities of students.

**Materials and research methods:** One of the most effective ways is to organize the independent study of students studying in higher education institutions with the help of e-learning resources for the global network. There are many types of e-learning resources available today, and the following are examples.

As a result, the following opportunities are created [1,6]:

- Develops students' communication skills;
- Prepares a person with an information culture of the society;
- A wide range of learners learn and imagine;
- provides a clear explanation of complex processes and events;
- Forms and develops students' research skills and the ability to make optimal decisions.

**Table 1: E-learning resources**

<b>Views of e-learning resources</b>	
.	Three-dimensional teaching aids
.	Smart learning systems
.	Teaching software
.	Virtual laboratories
.	Electronic simulators
.	Video lectures
.	Video clips
.	Electronic crosswords
.	Multimedia applications
0.	Self-Assessment Programs.

These types of e-learning resources allow you to describe different forms of science information, including the processes and events being studied. You will also have the opportunity to find answers to questions that arise in the process of learning new topics at any time [6]. Therefore, e-learning resources for the global network in higher education institutions serve as an important tool for independent study of the subject of demonstration experiments by students during laboratory classes in the natural and social sciences[1].

Special attention should be paid to the structure of e-learning resources and the formation of materials in them [12]:

- The content of the complex should be structured in such a way that neither the student nor the teacher has any difficulty in obtaining additional educational information;
- It is advisable to use a modular system in the formation of the structure of educational materials;
- there should be an opportunity to organize independent education;
- complete instructions on the study of educational materials;

- control tasks, self-examination questions and answers, practice tasks.

The use of multimedia technologies in the organization of the educational process on the basis of e-learning resources increases students' interest in reading, develops students' thinking skills based on the interactive nature of education and increases the effectiveness of learning materials. In addition, e-learning resources allow you to model and observe processes that are difficult or complex to demonstrate in real situations, depending not only on the level of mastery of learning materials, but also on the level of logic and perception of students also makes it effective [12].

E-learning resources in developed countries, including e-learning resources for the global network in countries such as the United States, Canada, Germany, the United Kingdom, Spain, France, Italy, Japan, China, South Korea and Russia widely, at the end of the 21<sup>st</sup> century, the use of open source teaching, including education through the global network, is expected to cover the whole world [9, 10, 11].

In the above-mentioned countries, e-learning resources are effectively used in the global network of independent study of students.

In this regard, digital technologies have been introduced in the higher education institutions of the country to effectively organize the process of education and upbringing in the context of distance learning. In order to organize education on the basis of these technologies, information and educational environments of higher education institutions, as well as systems for distance learning, such as MOODLE, HEMS have been created and educational resources were formed. Examples include modern virtual labs, computer simulators, diagonal programs, game learning resources, electronic textbooks, video lectures, 3D interactive teaching aids, electronic simulators, multimedia applications, e-books and encyclopedias.

**Research results.** Experimental work was carried out in higher education institutions aimed at developing students' scientific competencies in the basics of economics through the use of e-learning resources. The experimental work was carried out in 2021 at Bukhara State University, in which 56 students were involved in the experimental group and 64 students in the control group.

The results of the students involved in the experimental work were statistically analyzed based on the Student-Fisher criterion.

The mean values  $\bar{X} = \frac{1}{n} \sum_{i=1}^4 n_i X_i$ ,  $\bar{Y} = \frac{1}{m} \sum_{j=1}^4 m_j Y_j$ ,  $D_n = \sum_{i=1}^4 \frac{n_i (x_i - \bar{X})^2}{n-1}$ ,  $D_m = \sum_{j=1}^4 \frac{m_j (y_j - \bar{Y})^2}{m-1}$  dispersions were applied in using these criteria and in

determining the mastery index the formulas  $A \% = \frac{\bar{X}}{4} \cdot 100\% - \frac{\bar{Y}}{4} \cdot 100\%$  were used. The results of the calculation showed that the mastering rate of the experimental group increased by 10.25% compared to the control group.

### Conclusions

1. Improvement of algorithms and mechanisms for the use of modern e-learning resources in the effective organization of independent learning activities of students in higher education institutions will further enrich the quality of education.

As a result, students have the opportunity to increase their interest in science, motivation, develop and shape their creative abilities and professional competencies.

2. E-learning resources consist of a didactic, software and technical interactive set of teaching in a modern information technology environment, one of the advantages of which is learning through the formation of independent learning, creative thinking, skills and abilities, materials and scientific information.

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